AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions, and listings, of claims in the application.

1. (Original) A screening method for a somatic cell nuclear reprogramming substance, which comprises the following steps (a) and (b):
(a) a step for bringing into contact with each other a somatic cell comprising a gene wherein a marker gene is present at a position permitting expression control by the expression control region of an ECAT gene, and a test substance,
(b) a step following the aforementioned step (a), for determining the presence or absence of the emergence of cells expressing the marker gene, and selecting a test substance allowing the emergence of the cells as a somatic cell nuclear reprogramming substance candidate.

2. (Original) The screening method of claim 1, wherein the ECAT gene is one or more genes selected from among the ECAT1 gene, ECAT2 gene, ECAT3 gene, ECAT4 gene, ECAT5 gene, ECAT6 gene, ECAT7 gene, ECAT8 gene, ECAT9 gene and Oct3/4 gene.

3. (Currently Amended) The screening method of claim 1 ~~or 2~~, wherein the marker gene is a drug resistance gene, a fluorescent protein gene, a luminescent enzyme gene, a chromogenic enzyme gene or a gene comprising a combination thereof.

4. (Currently Amended) The screening method of ~~any of claims~~ claim 1 ~~to 3~~, wherein the somatic cell is a somatic cell comprising a gene resulting from knocking in the marker gene to the ECAT gene.

5. (Original) The screening method of claim 4, wherein the somatic cell is a somatic cell homozygously comprising the gene resulting from knocking in the marker gene to the ECAT gene.

6. (Currently Amended) The screening method of claim 4 ~~or 5~~, wherein the ECAT gene is one or more genes selected from among the ECAT1 gene, ECAT2 gene, ECAT3 gene, ECAT4 gene, ECAT5 gene, ECAT6 gene, ECAT7 gene, ECAT8 gene, ECAT9 gene and Oct3/4 gene.

7. (Original) The screening method of claim 1, which comprises the following steps (a) and (b):

(a) a step for bringing into contact with each other a somatic cell comprising a gene resulting from knocking in a gene comprising a drug resistance gene to the ECAT2 gene, and a test substance,

(b) a step following the aforementioned step (a), for determining the presence or absence of surviving cells in a selection medium, and selecting a test substance allowing the emergence of the surviving cells as a somatic cell nuclear reprogramming substance candidate.

8. (Original) The screening method of claim 1, which comprises the following steps (a) and (b):

(a) a step for bringing into contact with each other a somatic cell comprising a gene resulting from knocking in a gene comprising a drug resistance gene to the ECAT3 gene, and a test substance,

(b) a step following the aforementioned step (a), for determining the presence or absence of surviving cells in a selection medium, and selecting a test substance allowing the emergence of the surviving cells as a somatic cell nuclear reprogramming substance candidate.

9. (Original) The screening method of claim 1, which comprises the following steps (a) and (b):

(a) a step for bringing into contact with each other a somatic cell comprising a gene resulting from knocking in a gene comprising a drug resistance gene to the ECAT5 gene, and a test substance,

(b) a step following the aforementioned step (a), for determining the presence or absence of surviving cells in a selection medium, and selecting a test substance allowing the emergence of the surviving cells as a somatic cell nuclear reprogramming substance candidate.

10. (Original) The screening method of claim 1, which comprises the following steps (a) and (b):

(a) a step for bringing into contact with each other a somatic cell comprising genes resulting from knocking in a gene comprising a drug resistance gene to each of the ECAT2 gene and ECAT3 gene, and a test substance,

(b) a step following the aforementioned step (a), for determining the presence or absence of surviving cells in a selection medium, and selecting a test substance allowing the emergence of the surviving cells as a somatic cell nuclear reprogramming substance candidate.

11. (Original) The screening method of claim 10, wherein the different drug resistance genes have been knocked in to ECAT2 gene and the ECAT3 gene.

12. (Currently Amended) The screening method of ~~any of claims~~ claim 7 ~~to 11~~, wherein the somatic cell is a somatic cell homozygously comprising a gene resulting from knocking in a gene comprising a drug resistance gene to an ECAT gene.

13. (Original) The screening method of claim 1, which comprises the following steps (a) and (b):
(a) a step for bringing into contact with each other a somatic cell comprising a gene resulting from knocking in a gene comprising a drug resistance gene to the ECAT4 gene, and a test substance,
(b) a step following the aforementioned step (a), for determining the presence or absence of surviving cells in a selection medium, and selecting a test substance allowing the emergence of the surviving cells as a somatic cell nuclear reprogramming substance candidate.

14. (Original) The screening method of claim 13, wherein the somatic cell is a somatic cell heterozygously comprising a gene resulting from knocking in a gene comprising a drug resistance gene to the ECAT4 gene.

15. (Original) The screening method of claim 13, which comprises the following steps (a) and (b):
(a) a step for supplying ECAT4 to a somatic cell comprising a gene resulting from knocking in a gene comprising a drug resistance gene to the ECAT4 gene, and bringing it into contact with a test substance,
(b) a step following the aforementioned step (a), for determining the presence or absence of surviving cells in a selection medium, and selecting a test substance allowing the emergence of the surviving cells as a somatic cell nuclear reprogramming substance candidate.

16. (Original) The screening method of claim 15, wherein the somatic cell is a somatic cell homozygously comprising a gene resulting from knocking in a gene comprising a drug resistance gene to the ECAT4 gene.

17.-20. (Canceled)

21. (Currently Amended) ~~The substance of claim 20~~ A substance derived from ES cells with the NAT1 gene destroyed, ~~which~~ wherein the substance is a cDNA library, a protein library, or a cell extract.

22. (Currently Amended) ~~A use of~~ The screening method of claim 1, wherein the source of the somatic cell is a knock-in mouse comprising a gene resulting from knocking in a marker gene to an ECAT gene ~~as a source of the somatic cell used in the screening method of any of claim 1 to 16~~.

23. (Currently Amended) The screening method ~~use~~ of claim 22, wherein the knock-in mouse is a knock-in mouse homozygously comprising a gene resulting from knocking in a marker gene to an ECAT gene.

24. (Currently Amended) The screening method ~~use~~ of claim 22 ~~or 23~~, wherein the ECAT gene is one or more genes selected from among the ECAT1 gene, ECAT2 gene, ECAT3 gene, ECAT4 gene, ECAT5 gene, ECAT6 gene, ECAT7 gene, ECAT8 gene, ECAT9 gene and Oct3/4 gene.

25. (Currently Amended) The screening method ~~use~~ of ~~any of claims~~ claim 22 ~~to 24~~, wherein the marker gene is a drug resistance gene, a fluorescent protein gene, a luminescent enzyme gene, a chromogenic enzyme gene or a gene comprising a combination thereof.

26. (Currently Amended) ~~A~~ An isolated somatic cell comprising a gene wherein a marker gene is present at a position permitting expression control by the expression control region of an ECAT gene.

27. (Original) The somatic cell of claim 26, wherein the ECAT gene is one or more genes selected from among the ECAT1 gene, ECAT2 gene, ECAT3 gene, ECAT4 gene, ECAT5 gene, ECAT6 gene, ECAT7 gene, ECAT8 gene, ECAT9 gene and Oct3/4 gene.

28. (Currently Amended) The somatic cell of claim 26 ~~or 27~~, wherein the marker gene is a drug resistance gene, a fluorescent protein gene, a luminescent enzyme gene, a chromogenic enzyme gene or a gene comprising a combination thereof.

29. (Currently Amended) The somatic cell of ~~any of claims~~ claim 26 ~~to 28~~, which comprises a gene resulting from knocking in a marker gene to an ECAT gene.

30. (Original) The somatic cell of claim 29, which homozygously comprises a gene resulting from knocking in a marker gene to an ECAT gene.

31. (Original) The somatic cell of claim 30, which is a differentiated ES cell homozygously comprising a gene resulting from knocking in a marker gene to the ECAT4 gene.

32. (Currently Amended) The somatic cell of claim 31, ~~into~~ which comprises exogenous ECAT4 ~~has been supplied~~.

33. (Original) A selection method for ES-like cells, which comprises the following steps (a) and (b):

(a) a step for bringing into contact with each other a somatic cell comprising a gene wherein a marker gene is present at a position permitting expression control by the expression control region of an ECAT gene, and a somatic cell nuclear reprogramming substance,

(b) a step following the aforementioned step (a), for selecting cells expressing the marker gene as ES-like cells.

34. (Original) The selection method of claim 33, wherein the ECAT gene is one or more genes selected from among the ECAT1 gene, ECAT2 gene, ECAT3 gene, ECAT4 gene, ECAT5 gene, ECAT6 gene, ECAT7 gene, ECAT8 gene, ECAT9 gene and Oct3/4 gene.

35. (Currently Amended) The selection method of claim 33 ~~or 34~~, wherein the marker gene is a drug resistance gene, a fluorescent protein gene, a luminescent enzyme gene, a chromogenic enzyme gene or a gene comprising a combination thereof.

36. (Original) The selection method of claim 33, which comprises the following steps (a) and (b):
(a) a step for bringing into contact with each other a somatic cell comprising a gene wherein a drug resistance gene is present at a position permitting expression control by the expression control region of the ECAT2 gene, and a somatic cell nuclear reprogramming substance,
(b) a step following the aforementioned step (a), for selecting surviving cells in a selection medium as ES-like cells.

37. (Original) The selection method of claim 33, which comprises the following steps (a) and (b):
(a) a step for bringing into contact with each other a somatic cell comprising a gene wherein a drug resistance gene is present at a position permitting expression control by the expression control region of the ECAT3 gene, and a somatic cell nuclear reprogramming substance,
(b) a step following the aforementioned step (a), for selecting surviving cells in a selection medium as ES-like cells.

38. (Original) The selection method of claim 33, which comprises the following steps (a) and (b):
(a) a step for bringing into contact with each other a somatic cell comprising a gene wherein a drug resistance gene is present at a position permitting expression control by the expression control region of the ECAT5 gene, and a somatic cell nuclear reprogramming substance,
(b) a step following the aforementioned step (a), for selecting surviving cells in a selection medium as ES-like cells.

39. (Original) The selection method of claim 33, which comprises the following steps (a) and (b):
(a) a step for bringing into contact with each other a somatic cell comprising genes wherein a drug resistance gene is present at a position permitting expression control by the expression control region of each of the ECAT2 gene and the ECAT3 gene, and a somatic cell nuclear reprogramming substance,
(b) a step following the aforementioned step (a), for selecting surviving cells in a selection medium as ES-like cells.

40. (Original) The selection method of claim 39, wherein mutually different drug resistance genes are present at the positions permitting expression control by the expression control regions of the ECAT2 gene and the ECAT3 gene.

41. (Original) The selection method of claim 33, which comprises the following steps (a) and (b):
(a) a step for bringing into contact with each other a somatic cell comprising a gene wherein a drug resistance gene is present at a position permitting expression control by the expression control region of the ECAT4 gene, and a somatic cell nuclear reprogramming substance,
(b) a step following the aforementioned step (a), for selecting surviving cells in a selection medium as ES-like cells.

42. (Canceled)

43. (Currently Amended) A cell expressing the marker gene or surviving cell that has emerged in the screening method of ~~any of claims~~ claim 1 ~~to 16, or an ES-like cells~~ ~~cell selected in the selection method of any of claims 33 to 41~~.

44. (Original) A screening method for a substance for the maintenance of undifferentiated state and pluripotency of ES cells, which comprises the following steps (a) and (b):
(a) a step for bringing an ES cell comprising a gene wherein a marker gene is present at a position permitting expression control by the expression control region of an ECAT gene into

contact with a test substance in a medium not allowing the maintenance of undifferentiated state and pluripotency of ES cells,
(b) a step following the aforementioned step (a), for determining the presence or absence of cells expressing the marker gene, and selecting a test substance allowing the occurrence of the cells as a candidate substance for the maintenance of undifferentiated state and pluripotency of ES cells.

45. (Original) The screening method of claim 44, wherein the ECAT gene is one or more genes selected from among the ECAT1 gene, ECAT2 gene, ECAT3 gene, ECAT4 gene, ECAT5 gene, ECAT6 gene, ECAT7 gene, ECAT8 gene, ECAT9 gene and Oct3/4 gene.

46. (Currently Amended) The screening method of claim 44 ~~or 45~~, wherein the marker gene is a drug resistance gene, a fluorescent protein gene, a luminescent enzyme gene, a chromogenic enzyme gene or a gene comprising a combination thereof.

47. (Currently Amended) The screening method ~~of any~~ of ~~claims~~ claim 44 ~~to 46~~, wherein the ES cell is an ES cell comprising a gene resulting from knocking in a marker gene to an ECAT gene.

48. (Original) The screening method of claim 47, wherein the ES cell is an ES cell homozygously comprising a gene resulting from knocking in a marker gene to an ECAT gene.

49. (Currently Amended) The screening method of claim 47 ~~or 48~~, wherein the ECAT gene is one or more genes selected from among the ECAT1 gene, ECAT2 gene, ECAT3 gene, ECAT4 gene, ECAT5 gene, ECAT6 gene, ECAT7 gene, ECAT8 gene, ECAT9 gene and Oct3/4 gene.

50. (Original) The screening method of claim 44, which comprises the following steps (a) and (b):

(a) a step for bringing an ES cell comprising a gene resulting from knocking in a gene comprising a drug resistance gene to the ECAT2 gene into contact with a test substance in a medium not allowing the maintenance of undifferentiated state and pluripotency of ES cells, (b) a step following the aforementioned step (a), for determining the presence or absence of surviving cells in a selection medium, and selecting a test substance allowing the occurrence of the surviving cells as a candidate substance for the maintenance of undifferentiated state and pluripotency of ES cells.

51. (Original) The screening method of claim 44, which comprises the following steps (a) and (b):
(a) a step for bringing an ES cell comprising a gene resulting from knocking in a gene comprising a drug resistance gene to the ECAT3 gene into contact with a test substance in a medium not allowing the maintenance of undifferentiated state and pluripotency of ES cells, (b) a step following the aforementioned step (a), for determining the presence or absence of surviving cells in a selection medium, and selecting a test substance allowing the occurrence of the surviving cells as a candidate substance for the maintenance of undifferentiated state and pluripotency of ES cells.

52. (Original) The screening method of claim 44, which comprises the following steps (a) and (b):
(a) a step for bringing an ES cell comprising a gene resulting from knocking in a gene comprising a drug resistance gene to the ECAT5 gene into contact with a test substance in a medium not allowing the maintenance of undifferentiated state and pluripotency of ES cells, (b) a step following the aforementioned step (a), for determining the presence or absence of surviving cells in a selection medium, and selecting a test substance allowing the occurrence of the surviving cells as a candidate substance for the maintenance of undifferentiated state and pluripotency of ES cells.

53. (Original) The screening method of claim 44, which comprises the following steps (a) and (b):
(a) a step for bringing an ES cell comprising genes resulting from knocking in a gene comprising a drug resistance gene to each of the ECAT2 gene and the ECAT3 gene into

contact with a test substance in a medium not allowing the maintenance of undifferentiated state and pluripotency of ES cells,
(b) a step following the aforementioned step (a), for determining the presence or absence of surviving cells in a selection medium, and selecting a test substance allowing the occurrence of the surviving cells as a candidate substance for the maintenance of undifferentiated state and pluripotency of ES cells.

54. (Original) The screening method of claim 53, wherein the different drug resistance genes have been knocked in to ECAT2 gene and the ECAT3 gene.

55. (Currently Amended) The screening method of ~~any of claims~~ claim 50 ~~to 54~~, wherein the ES cell is an ES cell homozygously comprising a gene resulting from knocking in a gene comprising a drug resistance gene to an ECAT gene.

56. (Original) The screening method of claim 44, which comprises the following steps (a) and (b):
(a) a step for bringing an ES cell comprising a gene resulting from knocking in a gene comprising a drug resistance gene to the ECAT4 gene into contact with a test substance in a medium not allowing the maintenance of undifferentiated state and pluripotency of ES cells,
(b) a step following the aforementioned step (a), for determining the presence or absence of surviving cells in a selection medium, and selecting a test substance allowing the occurrence of the surviving cells as a candidate substance for the maintenance of undifferentiated state and pluripotency of ES cells.

57. (Original) The screening method of claim 56, wherein the ES cell is an ES cell heterozygously comprising a gene resulting from knocking in a gene comprising a drug resistance gene to the ECAT4 gene.

58.-60. (Canceled)

61. (Currently Amended) ~~A use of~~ The screening method of claim 44, wherein the source of the ES cell is a knock-in mouse comprising a gene resulting from knocking in a marker

gene to an ECAT gene ~~as a source of the ES cell used in the screening method of any of claim 44 to 57~~.

62. (Currently Amended) The screening method ~~use~~ of claim 61, wherein the knock-in mouse is a knock-in mouse homozygously comprising a gene resulting from knocking in a marker gene to an ECAT gene.

63. (Currently Amended) The screening method ~~use~~ of claim 61 ~~or 62~~, wherein the ECAT gene is one or more genes selected from among the ECAT1 gene, ECAT2 gene, ECAT3 gene, ECAT4 gene, ECAT5 gene, ECAT6 gene, ECAT7 gene, ECAT8 gene, ECAT9 gene and Oct3/4 gene.

64. (Currently Amended) The screening method ~~use~~ of ~~any of claims~~ claim 61 ~~to 63~~, wherein the marker gene is a drug resistance gene, a fluorescent protein gene, a luminescent enzyme gene, a chromogenic enzyme gene or a gene comprising a combination thereof.

65. (Currently Amended) An isolated ES cell comprising a gene wherein a marker gene is present at a position permitting expression control by the expression control region of an ECAT gene.

66. (Original) The ES cell of claim 65, wherein the ECAT gene is one or more genes selected from among the ECAT1 gene, ECAT2 gene, ECAT3 gene, ECAT4 gene, ECAT5 gene, ECAT6 gene, ECAT7 gene, ECAT8 gene, ECAT9 gene and Oct3/4 gene.

67. (Currently Amended) The ES cell of claim 65 ~~or 66~~, wherein the marker gene is a drug resistance gene, a fluorescent protein gene, a luminescent enzyme gene, a chromogenic enzyme gene or a gene comprising a combination thereof.

68. (Currently Amended) The ES cell of ~~any of claims~~ claim 65 ~~to 67~~, which comprises a gene resulting from knocking in a marker gene to an ECAT gene.

69. (Original) The ES cell of claim 68, which homozygously comprises a gene resulting from knocking in a marker gene to an ECAT gene.

70. (Canceled)